

**AMENDMENTS TO THE CLAIMS**

1. (Currently Amended) A method for calibrating a voltage controlled oscillator (VCO) comprising:

providing a serial resistance ladder having a plurality of equal resistors;  
applying a plurality of known voltages to the input of a VCO, wherein the known  
voltages are available from between each of the resistors;  
monitoring, for each of the voltages, an output count from the VCO over a set interval; and  
storing the output counts for each voltage.

2. (Canceled)

3. (Currently Amended) The method of claim [[2]] 1 wherein the serial resistance ladder and the VCO are constructed on the same integrated circuit.

4. (Original) The method of claim 1 further comprising:  
interleaving a VCO calibration cycle in which known input voltages are substituted for measurements of unknown input voltages.

5. (Original) The method of claim 1 further comprising:  
repeating calibration operations for the same known input voltage at periodic intervals to compensate for variations in operating conditions.

6. (Original) The method of claim 1 further comprising:  
applying an unknown voltage to the VCO input;  
monitoring an unknown output count from the VCO over a set interval; and  
comparing the unknown output count to a table of stored output counts.

7. (Original) The method of claim 6 wherein the unknown voltage is measured across a sense resistor with a known resistance, and further comprising:

determining the value of the unknown voltage by relating it to a known voltage that has an equivalent output count; and

calculating a current through the sense resistor using the known resistance and a value determined for the unknown voltage.

8. (Currently Amended) A system for calibrating a voltage controlled oscillator (VCO) comprising:

a plurality of known voltages, wherein the known voltage are connectable to the VCO; and

a controller coupled to the output of the VCO, wherein the controller maintains a calibration table of VCO output counts for selected voltage inputs[.]; and

a resistance ladder having a plurality of voltage taps, wherein the voltage taps provide the known voltages.

9. (Canceled)

10. (Currently Amended) The system of claim [[9]] 8 wherein the VCO, the resistance ladder and the controller are constructed on the same integrated circuit.

11. (Original) The system of claim 8 further comprising:

a plurality of VCOs; and

wherein the controller maintains a separate calibration table for each of the VCOs.

12. (Currently Amended) A computer program product comprising a computer usable medium having computer readable program code embedded therein, the computer readable program code comprising:

code for selecting a voltage to be applied to inputs of a plurality of voltage controlled oscillators (VCOs), wherein the voltage is selected from one of a plurality of voltage taps on a serial resistance ladder, wherein the voltage taps provide known voltages;

code for monitoring output counts from each of the plurality of VCOs over a set period of time, while the selected voltage is applied to the VCOs' inputs; and

code for storing, for each of the plurality of VCOs, a table of output counts associated with the selected voltage.

13. (Canceled)

14. (Original) The computer program product of claim 12 further comprising:  
code for interleaving a VCO calibration cycle during which with other VCO measurements.

15. (Currently Amended) A system for calibrating a voltage controlled oscillator (VCO) comprising:

means for applying a plurality of known voltages to the input of a VCO;

means for monitoring, for each of the voltages, an output count from the VCO over a set interval; [[and]]]

means for storing the output counts for each voltage;

means for applying an unknown voltage to the VCO input, wherein the unknown voltage is measured across a sense resistor with a known resistance;

means for monitoring an unknown output count from the VCO over a set interval; and

means for determining the value of the unknown voltage by relating it to a known voltage that has an equivalent output count; and

means for calculating a current through the sense resistor using the known resistance and a value determined for the unknown voltage.

16. (Original) The system of claim 15 further comprising:  
means for interleaving a VCO calibration cycle in which known input voltages are  
substituted for measurements of unknown input voltages.

17. (Original) The system of claim 15 further comprising:  
means for repeating calibration operations for the same known input voltage at  
periodic intervals to compensate for variations in operating conditions.

18. (Canceled)

19. (Canceled)